REMARKS/ARGUMENTS

Claims 1-33 are pending in this application. By this Amendment, Applicants AMEND claims 1-22 and ADD new claims 23-33.

Claims 1-22 were rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. Claims 1-22 have been amended to correct the informalities noted by the Examiner. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1-22 under 35 U.S.C. § 112, second paragraph.

Claims 1-16, 21, and 22 were rejected under 35 U.S.C. § 102(b) as being anticipated by Ishida et al. (U.S. 6,312,159). Claims 17-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Ishida et al. in view of Mukai et al. (U.S. 4,693,139).

Applicants respectfully traverse the rejections of claims 1-22.

Claim 1 has been amended to recite:

> A split connecting rod that holds a crank-pin through a bearing having a first protrusion and a second protrusion, comprising:
> a first locking groove that locks the first protrusion of said bearing when said bearing rotates forward in a circumferential direction of a crank-pin hole;
> a second locking groove that locks the second protrusion of said bearing when said bearing rotates backward in the circumferential direction of the crank-pin hole; and
> a large end portion including a rod portion and a cap portion; wherein
> **said first locking groove and said second locking groove are deviated from each other in said circumferential direction; and**
> **said first locking groove and said second locking groove are arranged to extend over both of the rod portion and the cap portion when the large end portion is fractured and split into said rod portion and said cap portion**. (emphasis added)

With the unique combination and arrangement of features recited in Applicants' claim 1, including the features of "said first locking groove and said second locking groove are deviated from each other in said circumferential direction" and "said first locking groove and said second locking groove are arranged to extend over both of the rod portion and the cap portion when the large end portion is fractured and split into said

rod portion and said cap portion," Applicants have been able to provide a connecting rod with a simple structure that prevents rotation of a metal bearing within a crank-pin hole of the connecting rod (see, for example, lines 16-20 on page 2 in Applicants' originally filed specification). Support for these features is found, for example, in Applicants' original claim 2.

The Examiner alleged with respect to claim 2 that Ishida et al. teach the features of "the first locking groove and the second locking groove are arranged to extend over both of the rod portion and the cap portion (see Fig. 7) when the large end portion is fractured and split into the rod portion and the cap portion, the first locking groove is deviated to the rod portion side the second locking groove is deviated to the cap portion side." Applicants respectfully disagree.

Ishida et al. show in Fig. 7 a first locking groove (5a) arranged only on the cap portion side (3) and a second locking groove (5b) arranged only on the rod portion side (2). The Examiner does not explain how the first and second locking grooves (5a, 5b) of Ishida et al. extend over both of the rod portion and the cap portion. Possibly, the Examiner considers the recessed groove (21) formed along the breaking plane (C) to be part of the first and second locking grooves. However, the groove (21) is merely a starting point for breaking the cap portion from the rod portion, and cannot function as a locking groove for the protrusions (11a, 11b, 12a, 12b) on the metal bearings since the protrusions are too large to fit into the recessed groove (21). Note, for example, the paragraph bridging columns 8 and 9 of Ishida et al., which states:

> FIG. 7 is a view, similar to FIG. 5, showing the inner peripheral surface of the split connecting rod in which a connection groove is formed. Referring to FIG. 7, the recessed groove 21 is formed along the breaking plane C so as to connect the locking grooves 5a and 5b to one another. The locking grooves 5a and 5b are respectively formed on the lower and upper sides with respect to the breaking plane C at both the axial ends of the large-diameter end portion 1a, **and any locking grooves communicated to the locking grooves 5a and 5b are not formed on the opposed sides thereof with respect to the breaking plane C** (see FIG. 5). (emphasis added)

Accordingly, Ishida et al. specifically teach that the locking grooves (5a, 5b) do NOT extend over the breaking plane (C), i.e., do NOT extend over both of the cap portion (3) and the rod portion (2) which are separated by the breaking plane (C). Thus, the recessed groove (21) of Ishida et al. is not, and cannot be, a part of either of the locking grooves (5a, 5b).

Furthermore, Ishida et al. teach that the protrusion (12a) on the metal bearing (10b) which fits into the locking groove (5a) engages with locking plane (17a) and that the protrusion (11a) on the metal bearing (10a) which fits into the locking groove (5b) engages with locking plane (17b). See, for example, lines 56-64 in column 7 and lines 22-30 in column 8 of Ishida et al. As clearly shown in Fig. 7 of Ishida et al., the locking planes (17a, 17b) are coincident with the breaking plane (C). Since the protrusions (12a, 11a) do NOT cross the breaking plane (C) of Ishida et al., it is apparent that the locking grooves (5a, 5b) also do NOT cross the breaking plane (C).

Accordingly, Ishida et al. do not teach or suggest the features of "said first locking groove and said second locking groove are deviated from each other in said circumferential direction" and "said first locking groove and said second locking groove are arranged to extend over both of the rod portion and the cap portion when the large end portion is fractured and split into said rod portion and said cap portion," as recited in Applicants' claim 1.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 1 under 35 U.S.C. § 102(b) as being anticipated by Ishida et al.

The Examiner relied upon Mukai et al. to allegedly cure deficiencies of Ishida et al. However, Mukai et al. clearly fail to teach or suggest the features of "said first locking groove and said second locking groove are deviated from each other in said circumferential direction" and "said first locking groove and said second locking groove are arranged to extend over both of the rod portion and the cap portion when the large end portion is fractured and split into said rod portion and said cap portion," as recited in Applicants' claim 1. Thus, Applicants respectfully submit that Mukai et al. fail to cure the deficiencies of Ishida et al. described above.

Accordingly, Applicants respectfully submit that Ishida et al. and Mukai et al., applied alone or in combination, fail to teach or suggest the unique combination and arrangement of elements recited in Applicants' claim 1.

Applicants new claim 25 recites:

> A split connecting rod that holds a crank-pin through a bearing having a first protrusion and a second protrusion, comprising:
>
> a first locking groove that locks the first protrusion of said bearing when said bearing rotates forward in a circumferential direction of a crank-pin hole;
>
> a second locking groove that locks the second protrusion of said bearing when said bearing rotates backward in the circumferential direction of the crank-pin hole; wherein
>
> **the split connecting rod includes only the first locking groove and the second locking groove on a first side of the crank-pin hole and no locking grooves on a second side of the crank-pin hole**.

Support for the above features is found, for example, in the paragraph bridging pages 17 and 18 in Applicants' originally filed specification.

Ishida et al. teach first and second locking grooves (5a, 5b) on a first side of the crank-pin hole and FOUR locking grooves (6a, 6b, 7a, 7b) on a second side of the crank-pin hole (see, for example, lines 19-26 in column 7 and Figs 2 and 6 of Ishida et al.).

Accordingly, Ishida et al. do not teach or suggest the features of "the split connecting rod includes only the first locking groove and the second locking groove on a first side of the crank-pin hole and no locking grooves on a second side of the crank-pin hole," as recited in Applicants' claim 25.

In view of the foregoing amendments and remarks, Applicants respectfully submit that claims 1 and 25 are allowable. Claims 2-24 and 26-33 depend upon claims 1 and 25, and are therefore allowable for at least the reasons that claims 1 and 25 are allowable.

In view of the foregoing amendments and remarks, Applicants respectfully submit that this application is in condition for allowance. Favorable consideration and prompt allowance are solicited.

The Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1353.

Respectfully submitted,

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